

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group
Art Unit: 3643

Attorney
Docket No.: TKA0028

Applicant: Yasushi KOHNO et al.

Invention: METHOD OF PREVENTING DEFECTIVE
GERMINATION OR GROWTH OF PLANT

Serial No: 09/837,020

Filed: April 18, 2001

Examiner: Andrea Valenti

**RESPONSE AFTER FINAL
EXPEDITED PROCESSING REQUESTED**

Certificate Under 37 CFR 1.8(a)

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on April 7, 2003

Michael S. Gaybowski
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**RESPONSE AFTER FINAL REJECTION
REQUEST FOR RECONSIDERATION**

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

The Official Action of March 11, 2003 has been thoroughly studied. Accordingly, the following remarks are believed to be sufficient to place the application into condition for allowance.

Claims 1-13 are pending in this application.

Claims 1-6 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 5,701,700 to Kohno et al. Skarpaas, *Population Viability Analysis for the Oyster Plant (Mertensia maritime) in the Oslofjord Region*.

Claims 7-12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,701,700 to Kohno et al. "as applied to claim 1" and further in view of U.S. Patent No. 5,525,131 to Asano.

For the reasons set forth below, it is submitted that all of the pending claims are allowable over the prior art and therefore, each of the outstanding rejections of the claims should properly be withdrawn.

Favorable reconsideration by the Examiner is earnestly solicited.

The premise of this Request for Reconsideration is that the prior art relied upon by the Examiner is not properly combinable under 35 U.S.C. §103(a).

In combining the teachings of Kohno et al. and Skarpaas, the Examiner takes the position that:

...it would have been obvious....to modify the storage duration through routine tests and experimentation to a length that enhances germination as taught by Skarpaas."

Skarpaas is directed to a study of a specific, herbaceous perennial plant that drops "nutlets" into the ocean so that the nutlets float for a very long period of time (several months) in 3% salt water. According to a standard dictionary definition (See www.webster.com) a "nutlet" is: "1 a : a small nut b : a small fruit similar to a nut" A "nut" is "1 a (1) : a hard-shelled dry fruit or seed with a separable rind or shell and interior kernel."

It is submitted that Kohno et al.'s radish seed is not at all comparable to the nutlet of Skarpaas or any nut or nutlet since radish seeds do not have hard shells and separable interior kernels.

There is no nexus between the radish seed of Kohno et al. and the nutlet of Skarpaas which supports the Examiner's assumption that the effect of allowing nutlets to float for very long periods of time (several months) in the ocean (3% salt water) would be the same if applied to radish seeds.

The only connection that has lead the Examiner to consider combining these two diverse teachings is applicants' own disclosure, because absent such improper hindsight, one skilled in the art would never consider applying the teachings of Skarpaas to Kohno et al.

Certainly the hard, and relatively thick, shells of nuts and nutlets of plants which are native to the beaches of southern Norway are more resistance to that environment than the radish seeds of Kohno et al., so that it cannot be merely assumed that each would be affected in a similar manner. There is simply no basis within the teachings of these references that supports such an assumption.

Any determination of obviousness involves aspects of hindsight inasmuch as one must always compare the claimed invention and its solution with the most relevant prior art before the assessment of the "inventive step" in order to objectively determine the problem to be solved by the claimed invention.

However, it is impermissible to rely upon hindsight to reconstruct an applicant's claimed invention by combining teachings from prior art references, which prior art references themselves do not provide any motivation or suggestion for the combination.

That is, it is impossible to rely upon an applicant's own disclosure as a blueprint to reconstruct an applicant's claimed invention from isolated teachings found in the prior art.

Obviousness has to be based upon what the prior art references themselves teach or suggest, absent any reliance at all upon an applicant's disclosure.

An examiner cannot rely upon the benefit of hindsight as a substitute for some motivation or suggestion found within the teachings of the prior art that supports the obviousness of their combination.

In light of the above, it is urged that the teachings of Skarpaas are not at all related to the teachings Kohno et al., because radish seeds are not comparable to the nutlet of Skarpaas or any nut or nutlet since radish seeds do not have hard shells and separable interior kernels.

Furthermore, one would not consider or envision allowing radish seeds float for very long periods of time (several months) in the ocean (3% salt water) upon reading the teachings of Skarpas, much less expect any beneficial results to be achieved thereby.

Kohno et al. teaches that the storage treatment discussed at beginning at column 3, line 28, *et seq.* produce seeds that have a germination rate that is equal to the germination rate of seeds that are not stored. (See column 3, lines 51-54) This echoes the statement at column 2, lines 53-56 that there is substantially no change in the properties of the seeds.

In actuality it is submitted that Kohno et al. fails to teach any benefit in germination caused by the storage process.

Even though Skarpas teaches that a cold period is needed to break dormancy, the teachings of Skarpas are limited to the oyster plant (*Mertansia maritime*).

For the reasons set forth above, the teaching of Skarpas are not germane to Kohno et al.

The Examiner's further reliance upon Asano does not address or overcome the deficiencies noted above related to the teachings of Skarpas and Kohno et al.

Asano has been relied upon by the Examiner as teaching that it is well known to palletize a seed.

The Examiner takes the position that it would have been obvious to apply the gel coating of Kohno et al. to the palletized seed of Asano for "the mechanized and economical distribution of the seeds in the field."

Contrary to the Examiner's position of obviousness, applicants note that it is very difficult to carry out a refrigeration treatment for a palletized seed prior to sowing, because palletized seeds formed with clay materials per Asano would tend to dissolve during the preservation in the cooling solutions of Kohno et al.

On page 4 of the Official Action the Examiner states that:

Examiner maintains that applicant's extremely broad claim language does not distinguish it over the teachings of the prior art.

Applicant notes that there is a discrepancy between applying prior art based upon a broad interpretation of an applicant's claimed invention and improperly combining prior art references.

Even if an applicant's claims are broad, an Examiner is still not permitted to establish obviousness on a combination of prior art teachings that lacks a suggestion or motivation in the prior art, i.e. is not truly obvious.

The argument set forth herein by applicants is not whether the pending claims are broad. The argument is that the prior art is not properly combinable. The position set forth by applicants is that the teachings of the prior art, absent improper hindsight and reliance upon applicants' own disclosure, do not provide the request motivation or suggestion needed to establish obviousness.

Skarpass' teachings of oyster plant seeds ("nutlets") floating in the ocean off southern Norway for months and breaking the dormancy of the seeds is not germane to Kohno et al. who teach

that cold storing radish seeds does not effect or change the germination of the seeds over non-stored seeds.

On page 4, of the Official Action the Examiner states that:

Examiner disagrees with applicant's argument that the palletized seed would dissolve during preservation, since Asano teaches exposure to ambient conditions and ambient conditions fluctuate between hot and cold and thus exposing the seed to cold temperatures without any adverse effects.

Applicants note it is not the heat and cold of Asano that would dissolve the seed coating material, but soaking coated seeds as taught by Asano in the liquid baths of Kohno et al.

On page 5 of the Official Action the Examiner cites *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971) as holding that as long as an examiner's conclusion of obviousness "takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction if proper."

In re McLaughlin involved a rejection under 35 U.S.C. §103 of a claim directed to railroad box car having an arrangement of filling panels that allowed a car to be loaded and unloaded simultaneously from both sides.

The court of appeals found primary reference to Cook indicated that the car shown therein is suitable for carrying palletized loads with lift trucks being used for the loading and unloading, including the stacking of the pallets. The secondary references show that it was well known to use side filler panels and bulkheads to confine palletized loads to prevent lateral and longitudinal shifting.

It is important to note that in *In re McLaughlin* each of the prior art references was directed to railroad car structures which the court of appeals found were properly combinable in the Examiner's rejection.

In the present situation, the teachings of Skarpass and Kohno et al. are not related as was the prior art in *In re McLaughlin*. Skarpass involves oyster plant "nutlets" that are allowed to float in the ocean off southern Norway for several months. Skarpass teaches that this process breaks the dormancy of the nutlets.

Kohno et al. is directed to a process for storing gel-coated radish seeds that are placed in a storage solution for a limited number of days. Kohno et al. reports that the storage-treated seeds exhibit a germination rate that is equal to non-stored seeds.

The differences between Skarpass and Kohno et al. negate the ability of the Examiner to properly rely upon the holding in *In re McLaughlin*. The knowledge that gel-coated radish seeds could benefit from being stored in a cold liquid solution is not found in Skarpass or Kohno et al. alone or in combination.

Absent this knowledge being found in the prior art, it can only be concluded that applicants' own disclosure has suggested the combination. This follows the holding in *In re McLaughlin* which supports applicants' position that the prior art as been improperly combined and the outstanding rejection of the claims should accordingly be withdrawn.

Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

The prior art cited but not relied upon by the Examiner on pages 4-5 of the Official Action has been noted. This prior art is not believed to be pertinent to applicants' claimed invention.

If upon consideration of the above, the Examiner should feel that there remains outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of

time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



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